DETAILED ACTION

Notice to Applicant

1. This communication is in response to the application filed on 9/08/03. Claims 1-28 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 15, 20 and 24 recite the limitation "the location of items" in their preamble. There are insufficient antecedent basis for this limitation in these claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horwitz et al. (6,496,806) in view of Francis et al. (6,600,418).

(A) As per claim 1, Horwitz discloses a method for configuring a controlled area with RFID tags for tracking the location of items within the controlled area (See Horwitz, Col.1, lines 13-30), placing the plurality of RFID tags in accordance with the determined locations (See Fig.5; Col.9, lines 11-32; Col.10, lines 16-35).

Horwitz does not explicitly disclose that the method comprising: determining a measurement accuracy for the location of the items; determining locations for a plurality of RFID tags based on the determined measurement accuracy.

However, these features are known in the art, as evidenced by Francis. In particular, Francis suggests that the method comprising: determining a measurement accuracy for the location of the items (See Francis, Col.9, lines 25-47); determining locations for a plurality of RFID tags based on the determined measurement accuracy (See Francis, Col.9, lines 32-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the features of Francis within the system of Horwitz with the motivation of providing a pass-through location, such a loading dock gate or a truck docked at the loading dock gate, is marked by an RFID assembly having two RFID tags spaced in close proximity to each other (See Francis, Col.3, lines 50-64).

(B) As per claim 2, Francis discloses the method wherein determining locations comprises determining a spacing for each of the plurality of RFID tags (See Francis, Col.3, lines 50-54).

(C) As per claim 3, Francis discloses the method wherein the determined spacing is less than or equal to the determined measurement accuracy (See Francis, Col.9, lines 33-46).

(D) As per claim 4,Francis discloses the method wherein determining the locations further comprises locating each of the plurality of RFID tags in a grid based on the determined spacing (See Francis,Fig.4; Col.9, lines 33-46).

(E) As per claim 5, Francis discloses the method wherein placing the plurality of RFID tags comprises assembling the plurality of RFID tags into a plurality of strips and placing the plurality of strips based on the determined locations (See Francis, Col.3, lines 5-13).

(F) As per claim 6, Francis discloses the method further comprising covering each of the plurality of strips with a protective material (See Francis, Col.9, lines 49-55; Col.11, lines 54-67 to Col.12, line 8).

(G) As per claim 7, Francis discloses the method wherein placing the plurality of RFID tags comprises retrofitting a floor of the controlled area (See Francis, Col.12, lines 58-67).

(H) As per claim 8, Francis discloses the method wherein retrofitting the floor comprises embedding each of the plurality of RFID tags in a low profile marker and installing the markers on the floor (See Francis, Col.11, lines 54-67).

(I) As per claim 9, Francis discloses the method wherein retrofitting the floor comprises, for each of the plurality of RFID tags, making hole in the floor, inserting the RFID tag in the hole, and filling the hole (See Francis, Col.12, lines 50-67).

(J) As per claim 10, Francis discloses the method where making a hole comprises boring a hole in the floor (See Francis, Col.11, lines 54-67).

(K) As per claim 11, Francis discloses the method further comprising placing two RFID interrogators on a vehicle used to move items within the controlled area, the RFID interrogators separated by a distance that is based on the determined spacing of the plurality of RFID tags (See Francis, Col.8, lines 19-27).

(L) As per claim 1, Francis discloses the method wherein the separation distance of the RFID interrogators is greater than the spacing determined for each of the plurality of RFID tags (See Francis, Col.3, lines 34-50; Col.9, lines 25-47).

(M) As per claim 13, Francis discloses the method wherein the separation distance of the RFID interrogators is at least four times greater than the spacing determined for each of the plurality of RFID tags.(See Francis, Col.9, lines 25-65).

(N) As per claim 14, Francis discloses the method wherein the RFID interrogators

are placed on the centerline of the vehicle (See Francis, Fig.10; ol.12, lines 1-16).

(O) As per claim 15, Horwitz discloses a method for configuring a controlled area with RFID tags for tracking the location of items within the controlled area (See Horwitz, Col.1, lines 13-30), and assembling the plurality of RFID tags into a plurality of strips and placing the plurality of strips based on the determined locations (See Francis, Fig.5; Col.9, lines 11-32; Col.10, lines 16-35).

Horwitz does not explicitly disclose that the method comprising: determining a measurement accuracy for the location of the items; determining locations for a plurality of RFID tags based on the determined measurement accuracy.

However, this feature is known in the art, as evidenced by Francis. In particular, Francis suggests that method comprising: determining a measurement accuracy for the location of the items (See Francis, Col.9, lines 25-47); determining locations for a plurality of RFID tags based on the determined measurement accuracy (See Francis, Col.9, lines 32-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the features of Francis within the system of Horwitz with the motivation of providing a pass-through location, such a loading dock gate or a truck docked at the loading dock gate, is marked by an RFID assembly having two RFID tags spaced in close proximity to each other (See Francis, Col.3, lines 50-64).

(P) As per claim 20, Horwitz discloses a method for configuring a controlled area with RFID tags for tracking the location of items within the controlled area (See Horwitz, Col.1, lines 13-30).

Horwitz does not explicitly disclose that the method comprising: determining a measurement accuracy for the location of the items; determining locations for a plurality of RFID tags based on the determined measurement accuracy; and embedding each of the plurality of RFID tags in a low profile marker and installing the markers on the floor based on the determined locations.

However, these features are known in the art, as evidenced by Francis. In particular, Francis suggests that the method comprising: determining a measurement accuracy for the location of the items (See Francis, Col.9, lines 25-47); determining locations for a plurality of RFID tags based on the determined measurement accuracy (See Francis, Col.9, lines 32-67); and embedding each of the plurality of RFID tags in a low profile marker and installing the markers on the floor based on the determined locations (See Francis, Col.11, lines 54-67 to Col.12, line 26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the features of Francis within the system of Horwitz with the motivation of providing a pass-through location, such a loading dock gate or a truck docked at the loading dock gate, is marked by an RFID assembly having two RFID tags spaced in close proximity to each other (See Francis, Col.3, lines 50-64).

(P) As per claim 24, Horwitz discloses a method for configuring a controlled area with RFID tags for tracking the location of items within the controlled area (See Horwitz, Col.1, lines 13-30).

Horwitz does not explicitly disclose that the method comprising: determining a measurement accuracy for the location of the items; determining locations for a plurality of RFID tags based on the determined measurement accuracy; and for each of the plurality of RFID tags, making hole in the floor in accordance with the determined locations, inserting the RFID tag in the hold, and filling the hole.

However, these features are known in the art, as evidenced by Francis. In particular, Francis suggests that the method comprising: determining a measurement accuracy for the location of the items (See Francis, Col.9, lines 25-47); determining locations for a plurality of RFID tags based on the determined measurement accuracy(See Francis, Col.9, lines 32-67); and for each of the plurality of RFID tags, making hole in the floor in accordance with the determined locations, inserting the RFID tag in the hold, and filling the hole (See Francis, Col.12, lines 39-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the features of Francis within the system of Horwitz with the motivation of providing a pass-through location, such a loading dock gate or a truck docked at the loading dock gate, is marked by an RFID assembly having two RFID tags spaced in close proximity to each other (See Francis, Col.3, lines 50-64).

(Q) Claims 16-19, 21-23 and 25-28 recite the underlying process steps of the elements of claims 2-4, 6 and 10, and respectively. As the various elements of claims 2-4, 6 and 10 have been shown to be either disclosed by or obvious in view of the collective teachings of Horwitz and Francis, it is readily apparent that method claims disclosed by the applied prior art performs the recited underlying functions. As such, the limitations recited in claims 16-19, 21-23 and 25-28 are rejected for the same reasons given above for claims 2-4, 6 and 25-28, and incorporated herein.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not the applied art teaches interrogation, monitoring and data exchange using RFID tags (6,563,417), facilities management system (2005/0078006).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VANEL FRENEL whose telephone number is (571)272-6769. The examiner can normally be reached on 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Gart can be reached on 571-272-3955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vanel Frenel/
Examiner, Art Unit 3687
April 8, 2008